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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,255	04/27/2000	Masajiro Iwasaki	R2184.0075/P075	2233

24998 7590 01/27/2003

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EXAMINER

GOOD JOHNSON, MOTILEWA

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 01/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/559,255

Applicant(s)

IWASAKI, MASAJIRO

Examiner

Motilewa A. Good-Johnson

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application):
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

DETAILED ACTION

1. This office action is responsive to the following communications: Application, filed on 04/27/2000.
2. Claims 1-18 are pending in this application. Claims 1, 9 and 17-18 are independent claims. No claims have yet been amended.
3. The present title of the application is "Presentation of Images Resembling Each Other" (as originally filed).

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Cullen et al., U.S. Patent Number 5,933,823, "Image Database Browsing and Query Using Texture Analysis", class 707/6.

As per independent claim 1, a method of displaying images that resemble each other, comprising the steps of: extracting image features from images; Cullen discloses extraction of image feature information, col. 8, line 53; dividing a feature space of the image features into sub-spaces having a hierarchical structure; Cullen discloses columns for texture, layout and graphics, col. 4, lines 55-67 and col. 5, lines 1-17; generating a tree structure . . . ; dividing a display space into divided spaces reflecting the tree structure; and assigning the image to the corresponding divided spaces . . . Cullen discloses in figure 3, assigned images corresponding to the texture, layout and graphics arrangement for an image search using image feature information. Cullen further discloses in figure 5 hierarchical browsing.

With respect to dependent claim 2, dividing a feature space includes a step of generating clusters having a circle shape by applying a clustering method recursively. Cullen discloses a clustered image database that groups images together in a hierarchical structure, col. 5, lines 11-22.

With respect to dependent claim 3, clustering method includes the steps of: obtaining a distance between an image feature and one of the clusters closest to the image feature . . . ; selecting an image feature successively from the image features . . . ; obtaining an increase in a radius of each cluster . . . ; and making the selected image feature belong to a cluster that has the smallest radius increase. Cullen discloses icons representing nodes and if there is one level of hierarchy the images in the cluster

nearest the example are returned, col. 5, lines 22-32. Cullen further discloses the level of variance is located at the radius, col. 7, lines 51-67.

With respect to dependent claim 4, dividing the display space includes the steps of: dividing the display space in a direction of a selected dimension . . . for a given node of the tree structure . . . ; and repeating said step by changing the selected dimension as a new node is selected . . . Cullen discloses dividing the database into one or more groups and discloses sorting the interest levels into bins of interest determined from the radii of the pixel, col. 7, lines 51-65.

With respect to dependent claim 5, provides extra spaces between the divided spaces such that the extra spaces represent gaps between the nodes. Cullen discloses elements of space holding values for black to white transitions, col. 8, lines 6-11.

With respect to dependent claim 6, divides the display space such that the divided spaces corresponding to the respective nodes have sizes proportional to number of image features . . . Cullen discloses dividing the display space proportional to the image features having three columns and three features, texture, layout and graphics, figure 3.

With respect to dependent claim 7, divides the display space such that the divided spaces corresponding to the respective nodes have sizes proportional to sizes of the sub-spaces . . . Cullen discloses multiple-level hierarchy and discloses levels that show icons representing nodes and as the hierarchy descends the smaller the icons are shown, figure 5.

With respect to dependent claim 8, adjusting sizes of the divided spaces such that the sizes of the divided spaces corresponding to the respective nodes reflect numbers of image features belonging to the respective nodes and sizes of the sub-spaces corresponding to the respective nodes. Cullen discloses an enhanced display for displaying the nodes and the search results with less clutter and further offsetting from page to page, col. 6, lines 50-67.

As per independent claim 9, 17 and 18, they are rejected based upon similar rational as above independent claim 1.

With respect to dependent claim 10-16, they are rejected based upon similar rational as above dependent claim 2-8 respectively.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,400,853 B1	Shiiyama	382/305	06/2002	03/1998
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Image retrieval apparatus and method.

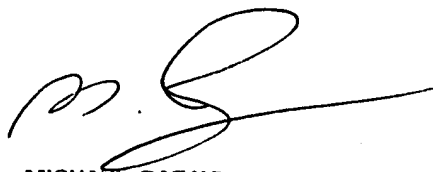
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Motilewa A. Good-Johnson
Examiner
Art Unit 2672

mgj
January 23, 2003

A handwritten signature in black ink, appearing to read 'M. Razavi', with a long horizontal flourish extending to the right.

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600